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CHEMICALS to Kill Weeds and Diseases in TOBACCO BEDS



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U. S. DEPARTMENT OF AGRICULTURE

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Chemicals Make a Difference

→
*THIS BED JUST GREW.
There are 648 weeds to the
square yard in it. See the
difference chemicals made
in the bed below.*

↓



Both Beds Were in the Same Soil



←
*THIS BED GOT 1 POUND
of Uramon and half a pound
of Cyanamid to the square
yard. There are only 40
weeds to the square yard
in it.*

THERE IS A NEW WAY to keep weeds and diseases out of tobacco plant beds. You can sterilize the ground with chemicals.

Scientists have tried out this method in Georgia, South Carolina, North Carolina, Tennessee, and Maryland for 6 years. Here is what they have found out:

CYANAMID will give protection from weeds. It does not help fight disease. (Cyanamid is calcium cyanamide.)

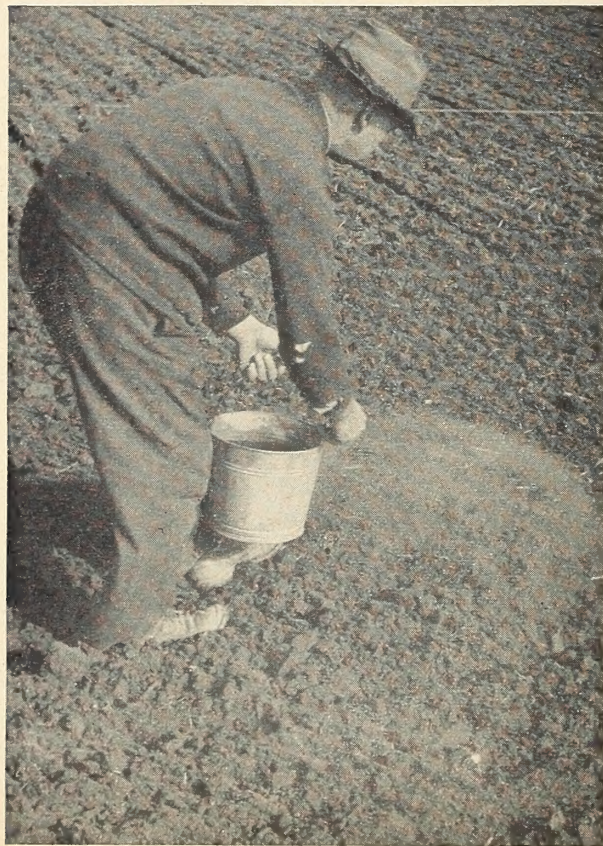
URAMON AND CYANAMID together will do even a better job of killing weeds. They will also prevent root knot, black root rot, and other diseases that affect the roots. (Uramon is urea.)

You can get these chemicals where you buy your fertilizers.

Will They Work for You?

Uramon and Cyanamid work better in some places than in others. They work very well in the light sandy loams found in the Coastal Plain area of eastern North Carolina, South Carolina, and Georgia. They do not always work so well in other areas where the soil is heavier.

Tobacco growers in the Coastal Plain can expect to get very good results.



Growers in other areas will have to learn from their own experience how well the chemicals will work. They should not use the chemicals on all their plant beds the first year.

If you have been burning your beds with brush and have plenty of brush, you will not need chemicals. If you sterilize your soil with steam, you need not change to chemicals. If your method works, it is all right.

The chemicals work best when the plant beds are in a rather moist place. The results are better in years when there is plenty of rain in winter.

It is very important to have moisture when the plants are coming up. If the weather is dry the beds should be watered until you have a good stand of plants.

When Do You Treat the Plant Beds?

You should treat the plant beds with chemicals a long time before you sow your seed. It will be best to do this 90 days before seeding. It should be at least 60 days.

The chemicals can be used any time between September 1 and November 1 when the soil is in good condition to work. October 1 to 10 is a good time in most places.

How Much Do You Use?

Find out how many square yards there are in your plant beds.

← *Broadcast the chemical by hand.*

After broadcasting the first two-thirds, work in 4 to 6 inches deep and mix it well with the soil. A disk is good for this work.



If you use Uramon and Cyanamid together, have a pound of Uramon and half a pound of Cyanamid for every square yard.

If you use Cyanamid alone, you will need just 1 pound for every square yard.

EXAMPLE.—If your bed is 5 yards wide and 20 yards long you have 100 square yards. That will take 100 pounds of Uramon and 50 pounds of Cyanamid. If you use Cyanamid alone, it will take 100 pounds.

If you don't have scales, you can have some of the chemical weighed at the store in the pail you will use. You will have to be exact when you measure your chemicals at the plant bed.

How You Do It

First get the ground ready. Plow it and disk it. If you have a green cover crop to work in, do this at least 4 weeks before you are going to use the chemicals.

Then pick a time when the soil is in good condition. Level the ground carefully. Make a ditch around the whole area if there is danger that water will wash in from the outside.

Mark out each plant bed. Then it would be a good idea to make marks across each bed so that



you have areas of equal size. This will make it easier to get the same quantity of chemical on all parts of the plant bed.

Take two-thirds of the chemical. Broadcast it by hand. Work it in 4 to 6 inches deep with a disk or a shovel-type cultivator.

It does not make much difference what tools you use to mix the chemicals with the soil. The important thing is to get them well mixed. Any tool that does a good job of mixing is all right.

Then broadcast the other third. Work it into the surface soil with an iron rake or some other tool that will not go deep.

You Will Need Less Fertilizer

Uramon and Cyanamid contain nitrogen. Some of it will still be in the ground when you sow your seed.

So, when it comes time to seed, you will need less nitrogen in the fertilizer. You can use a low-nitrogen fertilizer. Or you can cut down the quantity of the fertilizer you have always used.

This has been tried out. Where it has been the custom to use 2 pounds of fertilizer for every square yard, 1 pound has been enough after using chemicals on the plant beds.

Work the fertilizer in to a depth of 1 to 1½ inches. Use a hand rake, weeder, or some other tool that does not go too deep.

Sow the seed just as you always do.

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← *After broadcasting the last third, work it into the surface soil with a tool that will not go deep.*

When you put fertilizer on in spring, just work it into the surface soil.



Things to Look Out For

There are some things that have to be done just right.

BE SURE to level the entire plant-bed area.

Be sure to work the soil up before you broadcast the chemicals.

Be sure you mix the chemicals with the soil in a way that leaves enough in the top 1 to 2 inches.

BE EXACT when you weigh or measure your chemicals.

BE SURE to ditch the plant-bed area if there is danger that water will wash in from the outside.

Never work the soil deeply after you have treated the bed and left it in fall.

When it comes time to sow the seed, DON'T use a disk or a shovel-type cultivator. Just rake in the fertilizer.

Be sure to water the beds when it is time for the plants to come up IF THE WEATHER IS DRY. Water until you have a good stand.

You Can Expect Improvements

Scientists are still studying the use of chemicals in tobacco plant beds. They do not have all the answers yet. They are looking for still better ways to kill weeds and diseases with chemicals. And they expect to find out how to use chemicals in places where they have not yet worked so well. Your experiences will be valuable. If you have any suggestions, pass them along to your county agent. They will be appreciated. And they may help others.

The studies of these chemicals and their effects on tobacco plant beds were made by the Bureau of Plant Industry, Soils, and Agricultural Engineering in cooperation with the Georgia Coastal Plain Experiment Station; the State agricultural experiment stations of South Carolina, North Carolina, Tennessee, and Maryland; and the North Carolina Department of Agriculture.

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